

In the Claims

1.-14. (Cancelled)

15. (Currently Amended) A direct spin-draw method of producing multifilament yarn, which has a strength of at least 3 cN/dtex, a Young's modulus of no more than 25 cN/dtex, a minimum value of a differential Young's modulus at 3 – 10% extension of no more than 6.6 cN/dtex, and an elastic recovery following 10% elongation of at least 90% comprising:

melt spinning a polymer substantially comprising polytrimethylene terephthalate of intrinsic viscosity (η) at least 0.7 into the multifilament yarn;

hauling off the multifilament yarn via a first heated roll at a spinning rate of at least 2000 m/min;

subjecting the multifilament yarn to drawing, without winding up between the first heated roll and a second heated roll at low draw rate to keep breaking extension of the yarn at 40% or more,

subjecting the multifilament yarn to a heat-treatment at the second roll;

subjecting the multifilament yarn to a relaxation heat treatment between the second heated roll and a third roll or between the second heat roll and a winder;

preventing the multifilament yarn from winding back onto the second heated roll during the relaxation heat treatment by reducing the frictional coefficient between the multifilament yarn and the second heated roll to cause a selected amount of slip with a second heated roll surface roughness of 1.5S - 8S at 105 - 180°C, by plural laps of the multifilament yarn;

subjecting the multifilament yarn to an interlacing treatment with an interlacing treatment nozzle that controls tension gradient between the second heated roll and the winder and to further control relaxation of the multifilament yarn at a relocation factor of 10 to 20% and to make the multifilament yarn have a CF value of 1 – 30; and

winding the multifilament yarn up as a package.

16. (Previously Presented) The method of producing polyester yarn according to Claim 15, wherein the intrinsic viscosity of the polytrimethylene terephthalate is at least 0.8.

17. (Previously Presented) The method of producing polyester yarn according to Claim 15, wherein melt spinning is carried out at a temperature 20 - 50°C higher than the melting point of the polytrimethylene terephthalate.

18. (Previously Presented) The method of producing polyester yarn according to Claim 15, wherein the polytrimethylene terephthalate is hauled-off at a spinning rate of at least 3,000 m/min.

19. (Previously Presented) The method of producing polyester yarn according to Claim 15, wherein the relaxation heat treatment is carried out at a relaxation factor of 8 to 18%.

20. (Cancelled)

21. (Previously Presented) The method of producing polyester yarn according to Claim 15, wherein the second heated roll has surface roughness 3.2S - 6.3S.

22. (Previously Presented) The method of producing polyester yarn according to Claim 15, wherein the drawing temperature is 10 - 50°C higher than the glass transition temperature of polytrimethylene terephthalate.

23. (Cancelled)

24. (Previously Presented) The method of producing polyester yarn according to Claim 15, wherein the drawing is carried out at low draw rate, that the polyester yarn have strength from a stress-strain curve of at least 3 cN/dtex and a breaking extension of at least 42%.

25.-29. (Cancelled)